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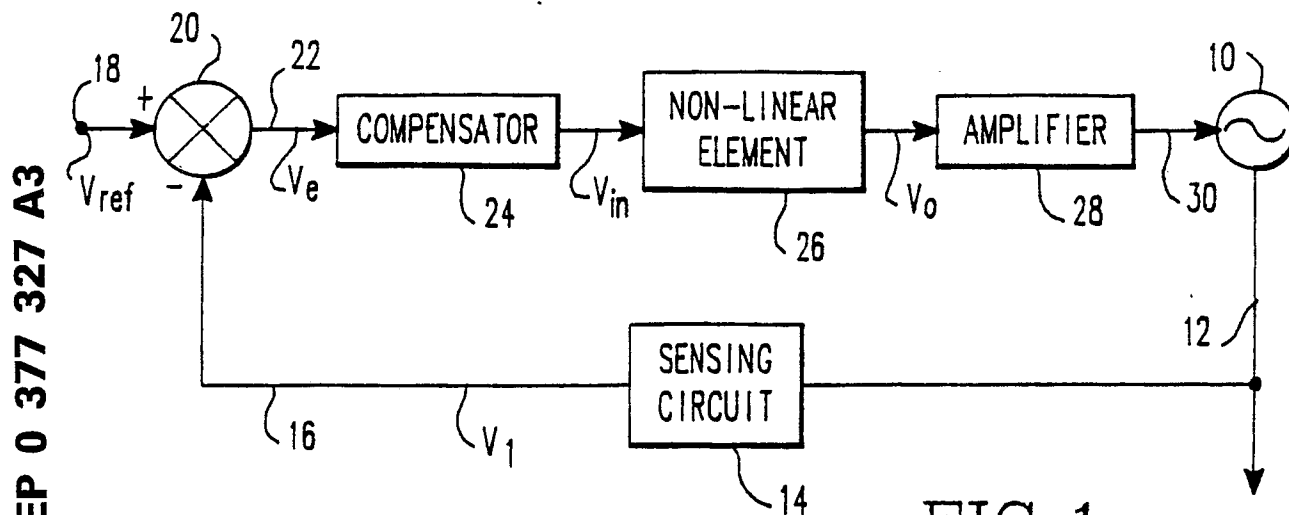
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54 **Generator voltage regulation with non-linear compensation.**

57 A method of regulating the output voltage of an electric generator 10 combines a signal representative of the actual output of the generator with a reference signal to obtain a control signal proportional to the difference between the desired output and the actual output. The control signal is modified by a non-linear transfer function which is representative of the gain of the generator over an expected operating speed and load range. The exciter field

current of the generator is controlled in response to the modified control signal, thereby causing the actual output to approach the desired output. Compensation for variation in generator gain is provided by a non-linear element, inserted in the voltage control loop such that the total loop gain is substantially constant over the operating speed and load range of the generator.



**FIG. 1**



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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	PATENT ABSTRACTS OF JAPAN vol. 8, no. 256 (E-280)(1693) 22 November 1984, & JP-A-59 127596 (NIPPON GENSHIRYOKU JIGYO K.K.) 23 July 1984, * the whole document *	1, 5	H02P9/10
A	IEE PROCEEDINGS B. ELECTRICAL POWER APPLICATIONS. vol. 135, no. 5, September 1988, STEVENAGE GB pages 231 - 239; C.D.Manning & al.: "New dynamic inductance concept and its application to synchronous machinemodelling" * figure 2 *	1, 5	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			H02P H02J G05F
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 19 JUNE 1990	Examiner LEOUFFRE, M
<b>CATEGORY OF CITED DOCUMENTS</b> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document			